## The Bearded Pig (Sus barbatus) in the Malay Peninsula.

BY H. C. ROBINSON AND J. C. MOULTON.

We owe the remarkable discovery of the Bearded Pig in the Malay Peninsula to Dr. W. S. Leicester an enthusiastic sportsman who obtained a single female specimen some years ago in the vicinity of Pekan, Pahang. The occurrence, however, was so remarkable and so at variance with preconceived ideas of geographical distribution that pending further evidence it was not considered advisable to place the occurrence on formal record. Now however that a further specimen has been obtained from the same locality there is no doubt whatever that the species must be regarded as a member of the peninsula fauna, though as noted below we think it not improbable that its presence is really due to some extraordinary change resulting in the landing of a herd from Borneo, the home of the true Sus barbatus, or from the Rhio Archipelago where the rather dubious race S. barbatus oi is found.

In answer to queries Dr. W. S. Leicester wrote under date March 19th. 1918, in reference to the original specimen—a fully adult female: "Yes I am quite certain she was shot in the neighbourhood of Pekan. I remember a herd of this breed appeared in the neighbourhood and I shot this large sow and several half grown ones from time to time but could not get at the big boar which was very cunning and got away every time. They were some time about Pekan but eventually disappeared and I have not come across any since."

Dr. Leicester very kindly presented this specimen to the F. M. S. Museums.

"It weighed 180 katis (240 pounds) and was very emaciated. He said he thought, if in condition, it would have scaled 230 katis

or more. It was a solitary boar."

The above statement supports the suggestion that this animal was the last survivor of some herd that had gained access to the Malay Peninsula and which had not been able to maintain itself under exotic conditions. Possibly even, it was the actual boar to which Dr. Leicester refers.

The description together with an excellent sketch with measurements, at once suggested the interesting possibility of this pig being Sus barbatus which was originally described from Borneo and later discovered in Sumatra and the Rhio Archipelago, and described by Miller under the name Sus oi. <sup>1</sup>

A comparison of the skulls with a topo-type of Sus oi from the Indragiri River, S. E. Sumatra, and with specimens from Tanjong Batu, Great Durian Island and Bintang Island, Rhio Archipelago, shows that they cannot be separated with certainty from this form, nor on the other hand can they be distinguished from a considerable series of the true Sus barbatus from various parts of Sarawak, Borneo.

The question then arises, is this pig indigenous in the Malay Peninsula, or is this particular record the result of some fortuitous visit by an adventurous pair—perhaps from Pulo Batam, 10 miles south of the southern extremity of Johore—who established themselves for a brief period in Pahang? Native stories of a giant white pig in Johore undoubtedly refer to this species. On the whole we are inclined to think that it is not indigenous in the Malay Peninsula. Its rarity here—we know of no other examples having been killed or seen authentically seems to point to the fact of it being only an occasional visitor. If it were a Peninsula species in the strict sense, the geographical distribution would be difficult to explain. On the other hand one should not lose sight of the fact that under favourable circumstances sufficient individuals might reasonably come in from the Malayan Islands near the mainland and establish themselves for a noticeable period.

Mr. Boden Kloss<sup>2</sup> has recently dealt with the Malaysian Bearded Pig. He points out the difficulty of distinguishing Susbarbatus of Borneo and Sus oi of Sumatra and Rhio on the dental characters given by Miller.<sup>3</sup> We agree that they are too variable to be of any use. Kloss however would separate Sus oi on the longer muzzle ("and perhaps a little broader"); the longer mandibular symphysis; the deeper mandible and the slightly more concave profile of the face. These statements broadly speaking agree with certain notes made by one of us in the early part of 1918 but hitherto unpublished on the topo-type of Sus oi in the Raffles Museum, which were as follows:—

<sup>1.</sup> Miller, Proc. Biol. Soc. Washington, xii, p. 51 (1902).

Kloss, Journ. Straits Branch, Roy. Asiat. Soc. No. 83, pp. 147, 150, (1921).

<sup>3.</sup> Miller, Proc. U. S. Nat. Mus. pp. 737-758 pls. XXXIX-LXIII (1906).

R. A. Soc., No. 85, 1922.

"The specimen is an absolute topo-type of Sus oi and in view of certain differences between it and the description and measurements of the type merits more detailed description. The animal is very fully adult but not aged. The naso-frontal suture is still visible but the basi-occipital is completely ossified. The teeth including the posterior molars in both jaws are somewhat worn but not so that the details of the enamel spaces cannot be recognized.

"Viewed in the basal aspect, the rostrum, anterior to the canines is broader than in similarly aged specimens of S. barbatus. The zygomata are more heavily built and more divergent and the tusk sheaths more recurved than in the Bornean animal while the cranial region is more sharply bent upwards from the level of the orbits. The mandibular symphysis is longer and this region of the jaw heavier than in Sus barbatus of equal size. Mr. Miller states that out of the specimens examined by him only two, the type and a specimen from Palembang, had the posterior molars in a condition fit for examination. The diagnosis of the race, however, depends on the fact that in Sus oi the upper posterior molar has 'its posterior portion much narrowed\* the lower tooth lacking the terminal heel but with the third transverse ridge reduced to a terete heel-like remnant.'"

Further examination of larger series from Borneo and elsewhere now convinces us that real differences between the Bornean animal and others from Rhio and Sumatra have not yet been demonstrated and that all the alleged characters of skulls from the latter localities can be explained by the varying age and innate variability of the specimens examined.

We are therefore of the opinion that there is no justification for regarding Sus oi as distinct, even subspecifically, from Sus barbatus and we therefore retain this last name to cover the Bearded Pig of Borneo, Sumatra, the Rhio Archipelago and Pahang.

The Giant Pig of South East Borneo and that from portions of Eastern Sumatra may possibly be a distinct race or even species as suggested by Kloss but we have no material on which to base an opinion. The former has been named Sus gargantua, Miller, and is based on a single not very old skull in the collection of the Agricultural High School, Berlin, from an unspecified locality in South East Borneo, which is the largest known skull of the genus Sus in any collection. The Sumatran form, as yet known from native accounts only, has been inadvertently named Sus branti by Kloss (antea) though as the name is accompanied by a description it will, by the laws of nomenclature, stand.

A table of measurements of the Peninsular, Bornean, Sumatran and Rhio Archipelago specimens of Sus barbatus is

<sup>\* &</sup>quot;This is visible in one young adult male (3rd upper molar fully erupted but hardly worn) from Sarawak."

	Sarawak, adult maie. H. C. R./377.	Sarawak, aged in ele H. C. R./368.	Nr. Ipoh, Perak, male. Selangor Museum.	Rawang, Selangor, male. Selangor Museum.	Kuala Lumpur, Selangor.male. Selangor Museum.	Lanet, Perak, male. Selangor Museum.	
	mm.	mm.	ınm.	mm.	mm.	mm.	
Upper length Basal length Basilar length Palatal length Width of palate at p.m¹ Width of palate includin Zygomatic breadth Least width of palate at fro Least interorbital breadth Parietal constriction Nasal breadth at posteric tremity of premaxilla Length of nasals Occipital depth to basion Mandible Maxillary tooth row (alve Second upper molar Third upper molar Mandibular tooth row (al Second lower molar Third lower molar	370 131 24×18	422 375 365 287 49 70 151 29 68 21 35 196 123 331 124 23×21 23×17 41×20	$35 \times 22$ 111 $20 \times 17$	$ \begin{vmatrix} 36 \times 24 \\ 110 \\ 20 \times 18 \end{vmatrix} $	$\begin{vmatrix} 32 \times 22 \\ 113 \\ 21 \times 18 \end{vmatrix}$	$37 \times 22$ 110 $21 \times 16$	
	Malay Peninsula  Sus barbatus						
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